

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number
WO 2005/030027 A3

(51) International Patent Classification⁷: C12Q 1/68,
C12P 19/34, C07H 21/04

(21) International Application Number:
PCT/US2004/012882

(22) International Filing Date: 27 April 2004 (27.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/466,398 29 April 2003 (29.04.2003) US

(71) Applicant (for all designated States except US): THE CLEVELAND CLINIC FOUNDATION [US/US]; 9500 Euclid Avenue, Cleveland, OH 44195 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): PROCOP, Gary, W. [US/US]; 9674 Firelands Drive, Twinsburg, OH 44087 (US).

(74) Agent: WESORICK, Richard, S.; Tarolli, Sundheim, Covell & Tummino L.L.P., 526 Superior Avenue, Suite 1111, Cleveland, OH 44114 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— of inventorship (Rule 4.17(iv)) for US only

Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
30 June 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/030027 A3

(54) Title: SALMONELLA DETECTION IDENTIFICATION

(57) Abstract: A nucleic acid specific for use in detecting and differentiating *Salmonella* from other bacteria comprises at least 10 contiguous nucleotides and is capable of selectively hybridizing to at least a portion of the *prg* gene of *Salmonella*.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/12882

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12Q 1/68; C12P 19/34; C07H 21/04
US CL : 435/6, 91.1, 91.2; 536/23/1, 24.3

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/6, 91.1, 91.2; 536/23/1, 24.3

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Genbank, National Center for Biotechnology Information, National Library of Medicine, NIH (Bethesda, MD, USA), Accession Number U21676, February 1996.	1-5, 13-16, 19, 20
Y		6-12, 17-18, 21-30
Y	DAUM, L.T. et al. Real-Time PCR Detection of <i>Salmonella</i> in Suspect Foods from a Gastroenteritis Outbreak in Kerr County, Texas. <i>Journal of Clinical Microbiology</i> . August 2002, Vol 40, pages 3050-3052, see especially page 3051.	6-12, 17, 18, and 21-30

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

29 April 2005 (29.04.2005)

Date of mailing of the international search report

19 MAY 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Faxsimile No. (703) 305-3230

Authorized officer

Jehanne S. Sitton

Telephone No. 571-272-0500

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/12832

Continuation of B. FIELDS SEARCHED Item 3:
Genbank, Genseq, East, Caplus, Medline
SEQ ID NOS 1, 3-4, 6-9; prg, gene, pcr, primer, probe, hybridization, salmonella